



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

AUG 8 1997

Ref: 8P2-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Kathy Turner
Geology/Petroleum
Engineering Technician
Petroglyph Operating Company, Inc.
6209 North Highway 61
Hutchinson, Kansas 67502

RE: UIC Minor Permit Modification
Conversion of Additional Well to
EPA Area Permit UT2736-00000
Antelope Creek Waterflood
Duchesne County, Utah

Dear Ms. Turner:

Your letter of July 17, 1997, requesting that the following production well be converted to a Class II enhanced oil recovery well and added to the Antelope Creek Waterflood, as authorized under EPA Area Permit #UT2736-00000, is hereby granted.

<u>NAME</u>	<u>LOCATION</u>	<u>EPA WELL PERMIT NO.</u>
Ute Tribal #28-03	NE/NW Section 28 T 5 S - R 3 W Antelope Creek Field Duchesne County, UT	#UT2736-04389

This additional well is within the boundary of the existing area permit for the Antelope Creek Waterflood (UT2736-00000), and this addition is made by minor permit modification according to the terms and conditions of that permit. Unless specifically mentioned in this Minor Permit Modification, all terms and conditions of the original permit will apply to the construction, operation, monitoring, and plugging and abandonment of this additional injection well. The proposed well location, well schematic, conversion procedures, plugging and abandonment plan and schematic, submitted by your office, have been reviewed and approved as follows:

- (1) The conversion of this production well has been reviewed, and found satisfactory, therefore, no corrective action is required.
- (2) Maximum injection pressure (Pmax) - the permittee submitted a list of five (5) individual zones, within the Ute Tribal #28-03, which were individually fraced and established an average fracture gradient (Fg) of



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RE: UIC Minor
Conversion
EPA Area P
Antelope C
Duchesne C

*Scan under
UT 20736-00000
Modification -
mine had approved
8/8/1997 - 2
well need to line
with UT 20736-04389
in new database also
under 81 Add Well to
Area Permit.*

Dear Ms. Turner:

Your letter of July 17, 1997, requesting that the following production well be converted to a Class II enhanced oil recovery well and added to the Antelope Creek Waterflood, as authorized under EPA Area Permit #UT2736-00000, is hereby granted.

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- (1) The **conversion** of this production well has been reviewed, and found satisfactory, therefore, no corrective action is required.
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0.937 psi/ft. which was derived from instantaneous shut-in pressures (ISIP) from each zone. This F_g is acceptable to the Environmental Protection Agency (EPA), and a theoretical maximum allowable surface injection pressure (P_{max}), for this well, may be calculated as shown below:

$$P_{max} = [F_g - 0.433 (S_g)] d$$

Where: P_{max} = Maximum surface injection pressure at wellhead

d = 4634' shallowest perforations

S_g = Specific gravity of injected water

$$P_{max} = [0.937 - .433 (1.00)] 4634$$

$$P_{max} = 2336 \text{ psig}$$

Until such time as the permittee demonstrates that a fracture gradient other than 0.937 psi/ft applies to the disposal zones of this newly converted well, the maximum allowable wellhead injection pressure (P_{max}) for this well will be 2336 psig.

- (3) The plugging and abandonment plan and schematic, submitted by your office, has been reviewed, and approved.

Prior to commencing injection into this well, permittee must fulfill permit condition Part II, C. 2. and have received written authorization to inject by the Environmental Protection Agency. In summary, these requirements for your newly permitted injection well are:

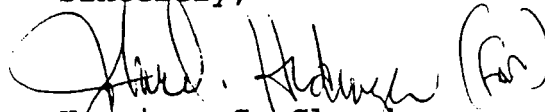
- (1) All conversion is complete and the permittee has submitted a completed Well Rework Record (EPA Form 7520-12).
- (2) The pore pressure has been determined.
- (3) The well has successfully completed and passed a mechanical integrity test (MIT); MIT guidance and EPA form enclosed.

All other provisions and conditions of the permit remain as originally issued.

If you have any questions, please contact Mr. Chuck Williams at (303) 312-6625.

Also, please direct the above requirements to Mr. Williams at the above letterhead address, citing MAIL CODE 8P2-W-GW. Thank you for your continued cooperation.

Sincerely,



Kerrigan G. Clough
Assistant Regional Administrator
Office of Pollution Prevention,
State and Tribal Assistance

Enclosure: MIT Guidance and EPA Form

cc: Mr. Ferron Secakuku
Energy & Mineral Resource Dep't.
Ute Indian Tribe

Mr. Ronald Wopsock, Chairman
Uintah & Ouray Business Committee
Northern Ute Tribe

Mr. Jonas Grant, Director
Division of Natural Resources
Northern Ute Tribe

Mr. Norman Cambridge
BIA - Uintah & Ouray Agency

Mr. Gil Hunt
State of Utah Natural Resources
Division of Oil, Gas, and Mining

Mr. Jerry Kenczka
BLM - Vernal District Office

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Implementation Section, 8WM-DW
999 18th Street, Suite 500, Denver, CO 80202-2466
This form was printed on 08/05/1997.

Others present: _____

Initial casing/tubing annulus pressure _____ psig
Does the annulus pressure build back up? ☐ Yes ☐ No

Page 1 of 2

NOTE to FILE:

PETROGLYPH OPERATING CO., INC.

This is an existing UIC operator.

There are no informal compliance
actions on record for this company.

Jackie Lee
Signature


7-29-97
Date

UT 2736-04389
Permit Number

PERMIT ROUTING STANDARD OPERATING PROCEDURE (SOP) 11/26/96

LAURA:: Log in received dates on Permit Application and well logs
Give application to TINSLEY

TINSLEY: Determine how many blue files to make for Area Permit
Begin "Where's the Permit" tracking system
Give application to JACKIE.

JACKIE: Post Permit Numbers on Permit application and in Permit log book
Print out "Permit Routing SOP" and attach to permit application
Fill out "Permit Tracking" form and enter data into UICMENU
Print out "Operator Compliance" and attach to permit application
Give application and attachments to LAURA. 

LAURA: Make green and blue files and tags
Put "Permit Routing SOP" and put in front of green file
Put "Operator Compliance" in front of green file
Put Application in back of green file
Give application folders to TINSLEY

TINSLEY: Notify ECEJ of arrival of new permit application
Check w/ Secretary of State to obtain legal name of permittee
Make sure Secretary of State lists the permittee as OK to do business in the state
Review Compliance History for ECEJ assistance
Notify ECEJ if assistance is needed
Assign to Permit Writer/Reviewer
Update "Where's the Permit" with PERMIT NUMBER and WRITER
Notify LEE of who was assigned as WRITER
Give green and blue files to WRITER

WRITER: Perform Administrative Review within 30 days after "received" date
Write Administrative Complete/Incomplete letter for HOGLE to sign
Fill out "Administrative Review Routing Sheet" and put on routing package
Fill out "Administrative Review" worksheet and include in routing package
Update "Where's the Permit" with date the letter was written and routed

HOGLE: Sign Administrative Complete/Incomplete letter
Update "Where's the Permit" with date letter was signed
Give letter to LAURA to mail

LAURA: Date and mail Administrative Complete/Incomplete letter
Update "Where's the Permit" with date letter was mailed

Give routing package to WRITER

WRITER:

- File "Administrative Review" worksheet in front of green file
- Put Concurrence copy of Administrative Complete/Incomplete letter in green file
- Wait for RETURN RECEIPT card to return
- Include RETURN RECEIPT green card with letter in green file
- Update "Where's the Permit" with date green card was signed
- Update "Where's the Permit" with deadline for operator's response if incomplete
- Track Administrative Incomplete tasks (response from operator) if incomplete
- Perform Technical Review
- Fill out "Technical Review Steps" worksheet and put in front of green file
- Make sure P&A amount is at least \$3/ft
- Check w/ FR person for funds available, and correct amounts
- Obtain any information from operator needed to make the file technically complete
- Make permit decision based on technical data in fully documented application
- Assemble Draft Permit package for HOGLE to sign
- Stamp the Date block and the Signature block of the permit with "DRAFT"
- Stamp the Signature block of the Aquifer Exemption (if included) with "Draft"
- Check typography/consistent references in letter, Draft, SOB, AE, and PN
- Fill out "Draft Permit -- Routing Slip" and put on routing package cover
- Fill out "Draft Permit Considerations" and include in routing package
- Fill out "UIC Program Tracking" form and include in routing package
- Fill out "STARS" tracking form and include in routing package
- Send memo to TAYLOR to obtain money for PN
- Give green file and routing package to FTE for Technical Review
- Update "Where's the Permit" with date draft permit was routed

FTE:

- Make sure Administrative Complete letter w/green card is in the green file
- Make sure permit decisions are based on sound technical data in the green file:
 - Injection zone TDS has been adequately determined and located
 - All USDWs have been adequately determined and located
 - All confining zones are adequately determined and located
 - Injection well /AOR well construction is adequately documented
 - Review AOR wells for possible Corrective Action
 - P&A protects fluid contamination into and between USDWs
 - P&A amount is at least \$3/ft and funds available with correct amounts
 - Maximum injection pressure has been adequately determined
 - Aquifer Exemption meets requirements in 40 CFR 146.4
- Make sure all tracking and accountability forms are in the routing package
- Notify ECEJ if boilerplate language is changed
- Periodically give the green file and the routing package to ECEJ for Audit
- Give green file back to WRITER
- Give routing package to OLIVER to proof read

LAURA: Proof read routing package
ROUTE the package for signature

ROUTE: Obtain necessary signatures on routing package and documents
Give routing package to HOGLE to sign

HOGLE: Sign Draft Permit letter
Update "Where's the Permit" with date Draft Permit was signed
Give routing package to WRITER

WRITER: Give "Draft Permit Considerations" to JACKIE
Give "UIC Program Tracking" form to JACKIE
Give "STARS" tracking form to JACKIE

JACKIE: Enter "Draft Permit Considerations" information into UICMENU
Enter "UIC Program Tracking" information into UICMENU
Enter "STARS" tracking form information into UICMENU
Give forms back to WRITER when data is entered

WRITER: File Draft Permit forms in front of green file
Make appropriate copies of Draft, SOB, letter, Aquifer Exemption, and PN
Fill out "Tribal Assistance Notification" form
Give "Tribal Assistance Notification," a copy of PN, and cover letter to TA group
Give appropriate copies to OLIVER to mail

LAURA: Date and mail copies of Draft Permit documents
Update "Where's the Permit" with date Draft Permit was mailed

WRITER: Place "Original" Draft Permit, Letter, SOB, AE and PN in green file
Include RETURN RECEIPT green cards with letter in green file
Update "Where's the Permit" with date Permittee received Draft Permit

TAYLOR: Publish PN
Give PN and affidavits to WRITER

WRITER: Obtain and include PN affidavits in green file
Track dates when each PN was published or received
Begin 30 day PN on the date that the last PN was published or received
Update "Where's the Permit" with beginning-ending dates of PN
Accept comments for 30 days, include all comments in green file
Update "Where's the Permit" with date comments are received
Type written "Response to Comments"
Change Draft, SOB, Aquifer Exemption, and letter as needed

Assemble Final Permit routing package for CLOUGH to sign
 Update "Where's the Permit" with date Final Permit letter is written
 Put "Tribal Assistance Notification" response in routing package
 Put all PN comments and Response to Comments in routing package
 Fill out "Final Permit Routing Sheet" and put on cover of routing package
 Fill out "Operating Conditions" form and include in routing package
 Fill out "Final Permit Considerations" and include in routing package
 Fill out "UIC Program Tracking Data Entry Form" and include in routing package
 Fill out "Prior to Beginning Injection" checklist and include in routing package
 Fill out "Final Permit Distribution List" and include in routing package
 Give green file and routing package to FTE
 Update "Where's the Permit" with date Final Permit was routed

FTE: Make sure Draft Permit documents w/ green card are in green file
 Make sure "Tribal Assistance Notification" response in routing package
 Make sure PN requirements have been met
 Make sure any PN comments are adequately addressed
 Make sure any changes to the permit are within regulations
 Make sure file contains full documentation
 Make sure permit decision is based on sound technical data
 Make sure all tracking and accountability forms are included
 Give routing package to OLIVER to proofread
 Return green file to WRITER

LAURA: Proof read routing package
 ROUTE the package for signature

ROUTE: Obtain necessary signatures on routing package and documents
 Give routing package to CLOUGH to sign

CLOUGH: Sign Final Permit, transmittal letter, (and Aquifer Exemption if included)
 Give routing package to WRITER

WRITER: Fill out "issued" and "effective" dates on permit
 Update "Where's the Permit" with ISSUED and EFFECTIVE dates
 Update "Where's the Permit" with date Final Permit was signed
 Make appropriate copies as per "Final Permit Distribution List"
 Include "Original" signed Final Permit in green file
 Include "Final Permit Considerations" in green file
 Give "Operating Conditions" form to JACKIE
 Give "Final Permit Data" form to JACKIE
 Give "Prior to Beginning Injection" form to JACKIE
 Give copies to LAURA to mail

JACKIE: Enter "Operating Conditions" into UICMENU
Enter "Final Permit Data" into UICMENU
Enter "Prior to Beginning Injection" data UICMENU
Change OPERSTATUS from NS or NC to UC
Give data entry forms back to WRITER

LAURA: Mail copies of Final Permit documents

WRITER: Put data entry forms in front of green file
Include "Original" Final Permit in green file
Include "Copy" of Final Permit in blue file(s)
Include RETURN RECEIPT green card with letter in green file
Include copy of RETURN RECEIPT green card with letter in each blue file
Update "Where's the Permit" with date green card was signed
Track "Prior to Beginning Injection" items for completion
Write "Authorization to Begin Injection" letter to be signed by HOGLE

HOGLE: Sign "Authorization to Begin Injection"
Give routing package to LAURA to mail

LAURA: Mail letter
Give routing package to WRITER

WRITER: Include copy of signed letter in blue files
Include RETURN RECEIPT green card with letter in blue file
Send copy of signed letter to LEE to change OPERSTATUS to AC
Send copy of signed letter to ECEJ
Notify permittee that ECEJ is now tracking compliance
Return green and blue files to file cabinets

8/11/97 CW 3090C

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

AUG 12 1997

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Ms. Kathy Turner
Geology/Petroleum
Engineering Technician
Petroglyph Operating Company, Inc.
6209 North Highway 61
Hutchison, Kansas 67502

4a. Article Number

P 078 120 972

4b. Service Type

- ☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

8-15-97 AKS

5. Received By: (Print Name)

Kathy Turner

6. Signature: (Addressee or Agent)

X Kathy Turner

8. Addressee's Address (Only if requested and fee is paid)

rec'd - LC
AUG 20 1997

PS Form 3811, December 1994

F

Domestic Return Receipt

Thank you for using Return Receipt Service.

8/11/97 CW 3090C
P 078 120 972



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to	
Ms. Kathy Turner	
Geology/Petroleum	
Engineering Technician	
P.O., State and ZIP Code	
Petroglyph Operating CO., Inc.	
6209 North Highway 61	
Hutchison, Kansas 67502	
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, June 1991